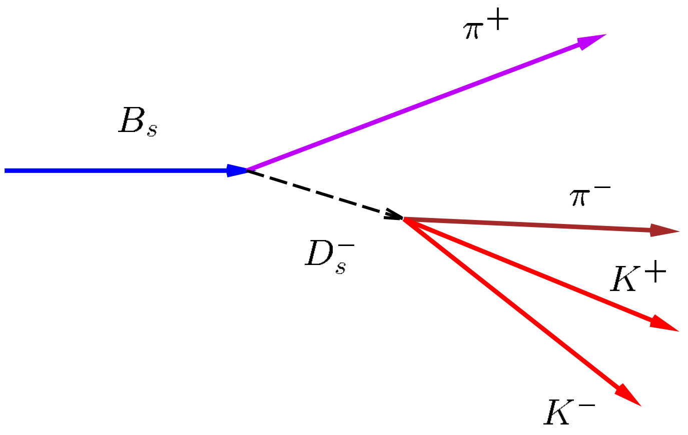
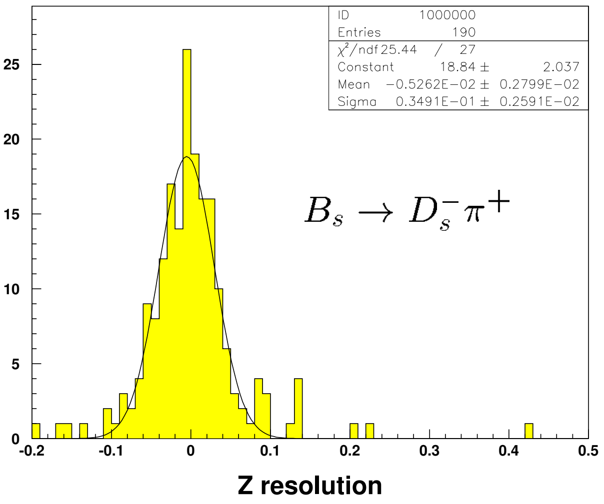
$B_s \to D_s^- \pi^+$ vertex resolution





- Decay chain $B_s \to D_s^- \pi^+$, $D_s^- \to \phi \pi^-$
- PYTHIA event generator, GEANT detector simulation
- Fast track reconstruction (refit over known hits in SVD)
- Vertex reconstruction and fitting package (T.Lohse)
- $D_s^- \to \phi \pi^-$ vertex: $\sigma_z \approx 930\ \mu$
- Tracks from D_s fit into one track using vertex constraint
- $B_s \to D_s^- \pi^+$ vertex: $\sigma_z \approx 350\ \mu$